



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,284	03/27/2001	Steven S. Homer	COMP:0204	9244

7590

08/03/2004

Robert A. Van Someren
Fletcher, Yoder & Van Someren
P.O. Box 692289
Houston, TX 77269-2289

EXAMINER

CHEN, ALAN S

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 08/03/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary

Application No.

09/818,284

Applicant(s)

HOMER ET AL.

Examiner

Alan S Chen

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-25, 27-30 and 32-50 is/are rejected.
- 7) ☒ Claim(s) 15, 26 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,8,14,16,17,22,27,28,33,34,38-43 and 48-50 rejected under 35 U.S.C. 102(b) as being anticipated by No. 5,876,233 to Choudhury et al. (hereafter Choudhury).

3. As per claims 1, Choudhury discloses a port configuration system for a computing device (Fig. 6) comprising: a plurality of ports (Fig. 2, element 14, two ports shown) configured for communication between a plurality of electronic devices (each port attaches to a different peripheral device) comprising the computing device and at least one peripheral device (connectors are intended for computing device and extension of computer device to peripheral device); a plurality of connectors disposed adjacent the plurality of ports (Fig. 6, element 32 and 22), wherein at least two ports of the plurality of ports share a common connector of the plurality of connectors (Fig. 6, the two ports 12 share two connectors 22).

4. As per claim 17, Choudhury discloses a space reduction system for a plurality of communication ports for a portable computing device (Column 1, lines 60-67), comprising: a communication panel for the portable computing device (inherent in the invention, connectors are designed for space reduction, particularly pertinent to for applications with tight space constraints such as laptop computers); a plurality of ports disposed on the communication panel (figure on front page, element 28 is the panel), wherein at least two ports of the plurality of ports

are disposed adjacent one another (Fig. 2, two ports 14 are adjacent); and a plurality of connectors disposed on the communication panel adjacent the plurality of ports (Fig. 2, connectors 20 are adjacent to one another), wherein the at least two ports share a common connector of the plurality of connectors (both ports share connectors 20).

5. As per claim 28, Choudhury discloses a system for conserving space (Column 1, lines 60-67), comprising: a portable computing device having a first communication port externally disposed on the portable computing device (inherent in the invention, connectors are designed for space reduction, particularly pertinent to for applications with tight space constraints such as laptop computers, Fig. 2 shows ports externally exposed); a second communication port externally disposed on the portable computing device adjacent to the first communication port (Fig. 2 shows ports externally exposed); and a common connector disposed on the portable computing device between the first and second communication ports (Fig. 6, either connectors 22 are common connectors to be shared between the two ports for mating with the cable structure Fig 6, element 26 and 28; as defined by Merriam-Webster Online Dictionary, attached, the word “between” means by the common action of: jointly engaged. Connectors 22 in Choudhury show that the either connector 22 jointly engages the first and second communication port).

6. As per claim 34, Choudhury discloses a method of configuring ports for communication between electronic devices (Abstract and Fig. 6), comprising: disposing a plurality of communication ports (Fig. 6, element 12) on a first electronic device; locating a plurality of connectors on the first electronic device adjacent the plurality of communication ports (Fig. 6, element 22 is adjacent to ports 12); positioning the plurality of communication ports adjacent one another (ports 12 adjacent); and deploying a single connector of the plurality of connectors

between the plurality of communication ports for sharing among the plurality of communication ports (either of the connectors denoted by element 22 are shared between the ports with respect to the mating cable structure, Fig. 6, element 26 and 28; as defined by Merriam-Webster Online Dictionary, attached, the word “between” means by the common action of: jointly engaged.

Connectors 22 in Choudhury show that the either connector 22 jointly engages the first and second communication port).

7. As per claim 43, Choudhury discloses a method of minimizing space requirements for a plurality of input/output ports for a portable computing device (Column 1, lines 60-67), comprising: disposing first and second ports on the portable computer device (inherent in the invention, connectors are designed for space reduction, particularly pertinent to for applications with tight space constraints such as laptop computers), wherein the first and second ports have connector members for coupling with an input/output cable (Fig. 6, element 22, 32 and cables 26); positioning the first and second ports adjacent one another (ports 12 are adjacent to one another); and sharing one of the connector members between the first and second ports (either connectors 22 are shared between the first and second ports; as defined by Merriam-Webster Online Dictionary, attached, the word “between” means by the common action of: jointly engaged. Connectors 22 in Choudhury show that the either connector 22 jointly engages the first and second communication port).

8. As per claim 2, Choudhury discloses claim 1, wherein the at least two ports are externally exposed on the computing device (Fig. 6).

9. As per claims 8,22 and 37 Choudhury discloses the claims 1,17 and 34 wherein at least one of the plurality of ports comprises a plurality of parallel pins (Column 4, lines 19-24).

Art Unit: 2182

10. As per claims 14,27 and 33, Choudhury discloses claims 1,17 and 28, wherein each of the at least two ports has two of the connectors (Fig. 6, element 22, each port has two connectors since the mating cable structure has two connectors/fasteners), one of which is the common connector (both connector/fasteners 22 are common).

11. As per claims 16 and 38, Choudhury discloses claims 1 and 34, wherein the plurality of connectors comprise threaded receptacles (see front page figure of Choudhury) configured to receive screw members adjacent a communication cable.

12. As per claims 39-42 and 48-50, Choudhury discloses claims 34 and 43, wherein positioning the single connector comprises eliminating a number of connectors (the two connectors/fasteners on the sides don't need another addition connector/fastener), the number being equal to one less than the plurality of communication ports (two communication ports, an additional connector/fastener is not needed, only two required), thereby reducing the space between the ports and reducing the overall space required on the computing device the connectors are mounted.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3-7, 9-13, 18-21, 23-25, 29,30,32,35,36 and 44-47 are rejected under 35 USC 103(a) as being unpatentable over Choudhury in view of No. 5,982,614 to Reid.

Choudhury discloses claims 1, 17, 28, 34 and 43.

Choudhury does not disclose expressly the type of ports and peripheral adaptability of the ports and connectors.

Reid discloses a typical portable computing device Fig. 1, wherein the last two ports are externally disposed on a portable computing device (Column 2, lines 59-61, Column 4, lines 15-17); wherein the portable computing device comprises a laptop computer (Fig. 1, element 120), a palmtop computer (Column 4, lines 15-33); wherein the peripheral device comprises a portable memory device (Column 5, lines 46-56); wherein at least one of the plurality of ports comprises a serial port, a parallel port (Column 5, lines 49) and/or a midi/game port (Column 5, lines 55-57, Fig. 1); a monitor port (Fig. 1); a docking port (Column 4, lines 43-55).

Choudhury and Reid are analogous art because they are from the same field of endeavor in use of electrical connectors in a constrained space environment.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the electrical connectors in a portable computing device.

The suggestion/motivation for doing so would have been the reduced space of the communication panel in a portable device and the need for miniaturization.

Therefore, it would have been obvious to combine Choudhury with Reid for the benefit of minimizing the electrical connector/port space requirement.

Allowable Subject Matter

15. Claims 15, 26 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to reducing the spacing of electrical connectors:

U.S. Pat. No. US005174293A to Hagiwara


U.S. Pat. No. US005567180A to Seo

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 703-605-0708. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
07/26/2004


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100